

SPRINGFIELD TOWNSHIP, OAKLAND COUNTY, MICHIGAN: A LEADER IN PROTECTING AND RESTORING NATURAL RESOURCES



Two Projects Further Township Goals:

Springfield Township is located in north Oakland County, in southeast Michigan, at the headwaters of four rivers: the Huron, Shiawassee, Clinton and Flint. The Township has long had a strong commitment, through its evolving land use policies and practices, to protect and preserve its natural resources, which are highly valued by Township residents and add to their quality of life.

This commitment led to a recent study, the Shiawassee & Huron Headwaters Resource Preservation Project. Project actions included developing a method to identify and rank natural resource systems; conducting field inventories of selected sites; reviewing land use planning documents of participating municipalities; and conducting a national literature search of natural resource protection tools and techniques. The result of the inventory was the identification of the existence within the Township of rare, high quality natural resource systems of global significance. Threats to these ecosystems were also identified, among them, the impact caused by the spread of non-native "invasive" plants. To address this threat, landscaping with native plants and preserving existing native vegetation were identified as key tools for protecting and restoring natural resources.

Based on the findings of the Headwaters project, it became evident to the Township that it could not fully succeed in its goal of protecting natural resource systems unless native plants are more commonly used for landscaping and greater efforts are made to preserve existing native vegetation. A second project, the Springfield Township Native Vegetation Enhancement Project, was initiated. The intention was to make it both enjoyable and as easy as possible for homeowners, developers and others to use native plants. A database consisting of photos, descriptions, and information on

more than 230 plants native to the area, though not exhaustive, was developed to provide a good starting point for those interested in obtaining commercially available native plants. Although the native plants listed in the database are drawn primarily from field inventories conducted in Springfield Township, many of these plants are also native to other southeast Michigan communities and to areas with topography, soils and climate similar to Springfield Township.

Initially, the database was planned for use as an internal document from which key information would be extracted and specific information or education pieces could be developed and targeted to specific groups. Based on input from an Advisory Committee made up of a cross section of local citizens, however, it quickly became evident that what all of the target groups wanted was access to a user-friendly, highly functional electronic database that would be accessible to a wide range of users. As a result, the database was incorporated into an interactive CD-ROM with the intention of distributing it throughout the Township. Due to great media interest, the expected release of the CD-ROM on May 12, 2001, surpassed the project's initial distribution goal. By September, the CD had been distributed to individuals and organizations in hundreds of Michigan communities in more than 50 counties, ten other states, and several other countries. With demand outstripping supply, the surprised Township requested help from the USEPA Great Lakes National Program Office, who quickly made the database available on the GLNPO Internet website.

In addition to the ranking system, inventory, and CD-ROM database, both projects included a review of Township zoning ordinance requirements on design and construction standards and the development of model ordinances. Policies relating to the use of native landscaping and retention of native vegetation were drafted and incorporated into a revised Master Plan. New Stormwater Management/Impervious Surface Mitigation ordinance provisions were drafted to incorporate use of native vegetation and are now being implemented for all development site plans submitted.

A Change in Development Patterns:

Development patterns in Springfield Township have changed as a result of the two projects. The Township's residential development review process automatically references information about natural areas in the vicinity and their sensitivity. If a portion

of a proposed development site contains a sensitive natural area, it is set aside as permanent open space to be preserved in a natural state. Homes that might otherwise be spread throughout a site are instead clustered outside of the sensitive part of the property. Third party conservation easements for the sensitive areas are granted to a local land conservancy. The natural area remains a part of the private development to be enjoyed by those that live there, but it is also protected and preserved. Open space within each development is set aside in blocks. An attempt is being made to plan sufficiently so that the blocks from adjacent developments connect with one another. On the developed portion of the site, the developer's landscape plan needs to incorporate the use of native plants and avoid the use of harmful plants. The CD-ROM is the source for a list of exotic invasive plants prohibited from use. Because easy-to-develop Township land is now gone, and almost all proposed developments are within or near sensitive natural areas, almost all of the residential developments undergo this review.

Over the past 18 months, five residential developments in Springfield have been developed in this manner, resulting in more than 300 acres of sensitive lands being preserved. It's now routine for 60% of the land within a proposed development to be preserved as open space. During this time period the use of native plants has been incorporated into every development, including to commercial and light industrial proposals. Although not usually located in sensitive areas, commercial and industrial development can benefit from use of native plants for landscaping and from implementation of best management practice stormwater management provisions.

For those core areas that are too fragile to sustain any type of development, other preservation solutions are used. Recently, for example, the Township applied for a grant to acquire a critical 37 acre parcel of lake, prairie fen and oak/hickory upland. The inventory and report compiled by Michigan Natural Features Inventory for the Headwaters Project documented the quality and importance of what has now become known as the Long Lake Natural Area. If successful, the acquisition will link this key parcel to adjacent lands already permanently protected within an extraordinary 600 acre ecosystem.

Several developers are distributing the native landscaping CD-ROM to new lot purchasers. It is sometimes referenced within the Master Deed and Bylaws and the development plan itself as a reference source for native species which should be used and for prohibited invasive exotic species.

Since each locale is unique, the Springfield Township approach that has resulted from the Headwaters and Landscaping projects may not work everywhere. But in the Township the planning process now provides sound data to help in natural resource protection. For developers there are benefits as well in terms of savings on construction costs and increased prices for lots abutting nature preserves. Springfield Township is developing a reputation as a desirable place to live. Most important, the Township is continuing to write the book on better natural resource planning and preservation.

Wide Project Applicability:

More than 20 news articles over the past several years and word of mouth praise for the CD-ROM database and model ordinances have kept Springfield Township officials engaged in speaking about their innovative work at numerous conferences and forums throughout Michigan. Springfield Township's projects are now being repeated elsewhere, adapted by other communities, and being put to use by planning professionals. The following examples show the wide applicability of the models produced by the Township:

- ▶ The Oakland County Planning and Economic Development Services is working with other communities in the county to develop a natural resources assessment and ranking system.
- ▶ Planning officials from several communities have conducted field trips to Springfield, and Township officials have led workshops for them on open space and natural resource planning.
- ▶ Springfield officials have responded to telephone inquiries from numerous municipal officials from across the state regarding development and implementation of planning techniques.
- ▶ Springfield officials have been invited to make presentations about its projects to several dozen organizations throughout the state, including local citizens groups and professional organizations like the American Society of Landscape Architects.
- ▶ Springfield Township's natural resource preservation planning tools and practices served as an example for development of open space planning legislation initiated by the State House Environment and Land Use Committee Chair and was recently enacted into law.
- ▶ Air quality officials from other areas of the country have contacted Springfield

- ▶ Township officials for background information in order to adapt the CD-ROM.
- ▶ A consulting firm working on the Rouge River restoration project for Ford Motor Company said it was thrilled by the CD's application to Rouge River work.
- ▶ An environmental planner with the Mid-America Regional Council in Kansas City, Missouri saw the Internet version of the database and is preparing a proposal to create a similar CD for the Kansas City Metro region.
- ▶ A Champaign County, Illinois planner is modeling her county's landscaping provisions on the zoning language drafted by Springfield.
- ▶ Representatives of other Oakland County communities are using Springfield's Master Plan and Design/Construction Standards as models as they consider revisions to their planning documents.
- ▶ Oakland County Planning is also promoting the Springfield Master Plan as a model for others to follow, and is loaning copies of Springfield's Master Plan to interested communities.

Interest Is Maintained as Projects Reap Awards:

The Township has received several prestigious awards. In 2000, the Headwaters project received the Michigan Society of Planning "Outstanding Planning Award." The CD-ROM database received the "Outstanding Planning Project for a Tool" award from the Michigan Society of Planning in 2001. In 2002, the CD-ROM received the "Michigan Chapter of the American Society of Landscape Architects' Honor Award." Both projects have been nominated for a "Smart Growth" award. Springfield Township has been recognized as an exemplary municipality for its Great Lakes natural resource protection work at the 2002 State of the Lakes Ecosystem Conference.

Thanks to well-intentioned elected Township officials and engaged local citizens, two projects have resulted in the greatest protection for Springfield Township's natural resources and models for other communities to emulate.

Project Funding:

The Shiawassee & Huron Headwaters Resource Preservation Project was funded by Oakland County, Springfield Township and partnering communities, the Community Foundation for Southeastern Michigan, and a \$75,000 grant (X98565801-0) from Region 5 of the U.S. Environmental Protection Agency Regional Geographic Initiative (RGI) funds.

A final report in hard copy and CD format are products of the grant. The report includes: identification and ranking of 114 sites; detailed field inventories of eight sites; a model natural areas opportunity plan; a description of 35 most applicable planning tools and techniques; language for 14 model policies and ordinances; and findings and recommendations. It also includes a detailed literature search and numerous maps.

The Springfield Township Native Vegetation Enhancement Project was funded by Springfield Township and by a \$25,000 grant (GL0055675-01-0) from the Great Lakes National Program Office of the U.S. Environmental Protection Agency. Products resulting from the grant include an interactive CD database and other education/information materials; and model language for local master plans, ordinances and standards, incorporating use of native landscaping and vegetation.

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Also see:

<http://www.epa.gov/glnpo/ecopage/springfieldtwp/home.html> for the CD-ROM database.